

File: MWRD - Sludge Mgmt -  
103rd & Doty

cedwpc / Permits, A. Keller  
~~103rd & Doty~~

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November 4, 1992

Mr. Charles Gruntman  
Illinois Environmental Protection Agency  
1701 South First Avenue, Suite 600  
Maywood, IL 60153

Re: Illinois International Port District/  
Metropolitan Water Reclamation District  
103rd and Doty Landfill Closure  
Golf Course Development

RBS  
GK  
JP

EPA Region 5 Records Ctr.



300886

Dear Mr. Gruntman:

At our meeting of October 22, 1992, and during subsequent telephone conversations with Mr. George Braam and myself, a number of issues were discussed with respect to the golf course development at the subject site. As we understand, an internal meeting within your agency will be held on November 5, 1992. We wanted to identify these issues and clarify our intended design procedures for your evaluation. The issues identified to date are as follows:

- 1) It is generally our intent to maintain the existing cap in place in areas of the landfill where closure has taken place and fill is required. Where more than one foot of fill sludge is used, it will be capped again, before providing a top one foot of sludge.

Areas of the landfill that have been closed or are under closure or have yet to be closed are shown on the attached Exhibit 1. Typical cross sections across the site are shown on attached Exhibit 2 for both the closed (clay capped) and non-closed (uncapped) areas.

- 2) In order to make the golf course work in certain areas (grading, visibility for play, earthwork balance, etc.) the golf course architect finds it essential to cut portions of the closed areas. These areas are shown on the attached Exhibit 3. We are projecting that 15 acres of the approximate 95 acres of closed areas within the golf course will require cut. These areas are shown on Exhibit 3. Again, these areas will be over excavated and the clay cap will be reinstalled in these areas, keying into the existing cap (to be shown in a later exhibit). The total site area to be recapped is less than seven percent of the entire site.

- 3) A pond system is currently designed and used by the MWRD to retain water on site. This system of ponds as shown on Exhibit 1 functions as both dry and wet ponds retaining water on site from a five-year storm. The system outlets to two small diameter sanitary sewers existing at the southwest and northeast corners of the site. Per the MWRD all of the retention areas have clay liners similar to the rest of the site and we do not expect any leakage.

The existing retention system has a major impact on the function of the site. We question the need for directing any of this water to the sanitary sewer after the site is closed. Once the clay cap is in place and the site is topped with the sludge topsoil, we would like to be able to direct storm water to the natural water courses in the area. This would be similar to other park and recreation areas where the MWRD is allowed to place one foot of sludge under a general IEPA permit without any storm water capture and conveyance to the sanitary sewer. If conveying this water to the sanitary sewer is not required we would eliminate net storage from the site.

- 4) The golf course will be irrigated using water directly from Lake Calumet. This has been approved by the Illinois Department of Transportation Division of Water Resources. As previously discussed, a double row irrigation system will be used throughout the site. We will require a depth of at least 24 inches for the sprinkler head, swing joint and irrigation main. We will have to disturb the existing clay cap wherever we construct the irrigation system. We propose that wherever this occurs in closed areas that the entire cap be removed and the sludge directly beneath the cap be removed in order to reinstall a compacted two-foot clay cap beneath the irrigation main. The entire trench will also be reconstructed so that the irrigation main is surrounded by a two-foot cap on all three sides. This is shown on Exhibit 4, attached.

Similar to the closed areas, in unclosed areas a two-foot clay cap will be constructed totally around any irrigation line. This is shown on Exhibit 5, attached.

The keying in of the clay cap is shown on the attached Exhibit 6. This is a conceptual detail, however, it is our intent to adapt this detail to all areas of the site where we must connect to the existing cap. This should eliminate the possibility of leakage through the clay cap.

- 5) A similar situation will affect the construction of the storm water drainage pipes. We propose that where the greatest potential exists for leakage (at the catch basin or manholes) that the entire structure be sealed with the clay cap. The detail for

Mr. Charles Gruntman

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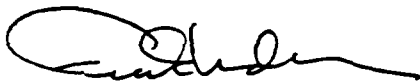
November 4, 1992

this installation is the same as what had been used in the past by the MWRD in the existing closed areas and is on the attached Exhibit 7.

- 6) The maintenance area is proposed to be constructed in the indented area along Doty Avenue and west of the No. 2 Hole (see Exhibit 3). We anticipate that the maintenance building (approximately 10,000 square feet) will be constructed on a slab on grade and that the clay cap will remain intact. If there is any disturbance of the cap, procedures similar to those described previously will be used for thickening or keying in the cap. The slab will be sloped to prevent any potential gas accumulation.
- 7) As discussed in our meetings, new tree and shrub plantings will be minimal on the golf course. It is being constructed as a "links" type golf course. Wherever a tree planting occurs, the area will be slightly raised with suitable backfill and with no more than the one foot of sludge topsoil. This will enable the clay cap to remain intact. Trees and shrubs will also be selected which maintain a shallow root system. This is shown on attached Exhibit 8.

We believe that this covers the various outstanding issues brought up at our last meetings. We look forward to comments and concurrence by Friday, November 6, 1992. As you know the agreement timetable calls for preliminary grading plans to be ready on November 12 (next Thursday). Thank you for your assistance.

Sincerely yours,



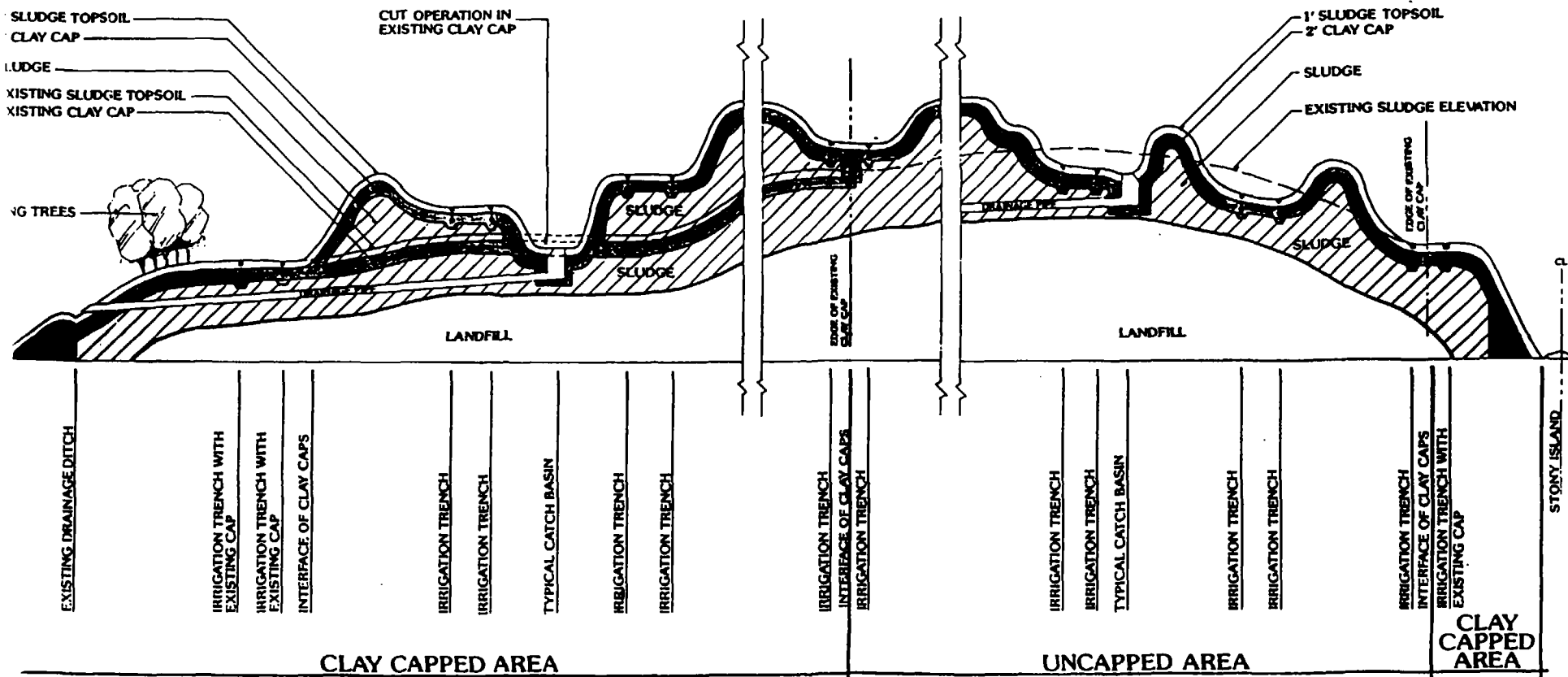
Frank Kudrna  
President  
Kudrna & Associates, Ltd.

/cc  
attachments

cc: Tony Ianello, IPD  
Dick Nugent, Dick Nugent & Asso.  
William Tozzi, MWRD

PAGE : 1 OF 1

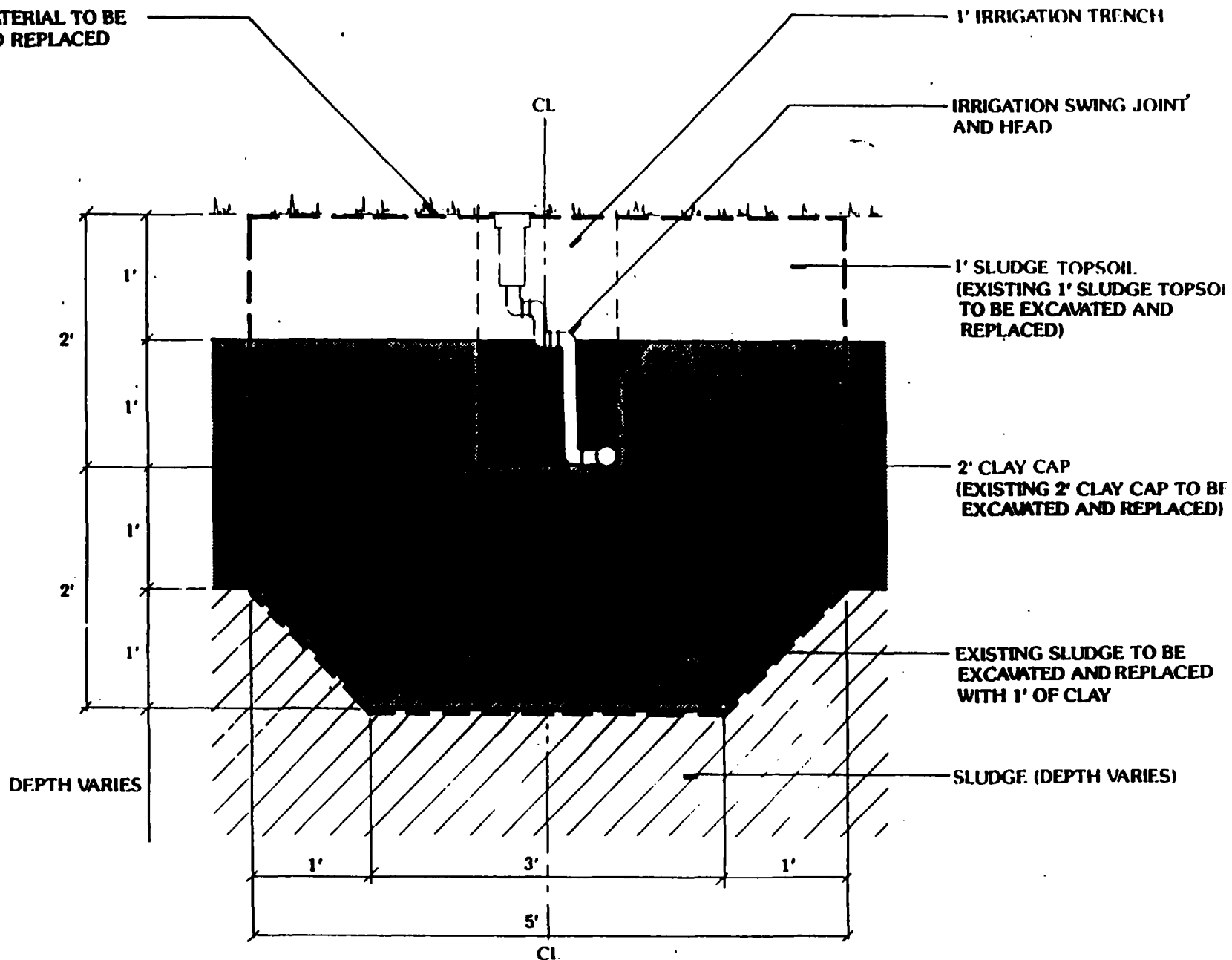




NO SCALE

## SITE SECTION

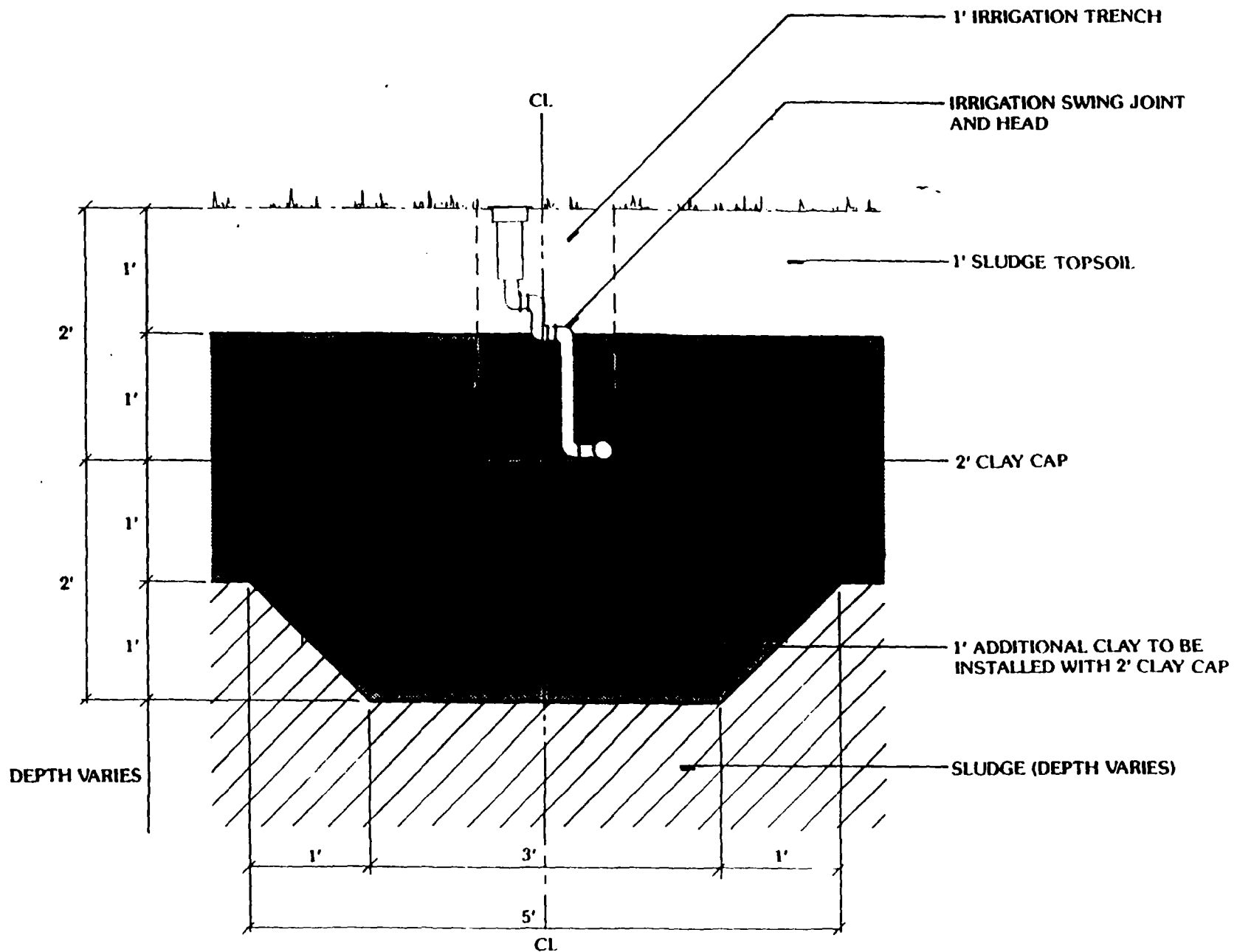
OUTLINE OF MATERIAL TO BE  
EXCAVATED AND REPLACED  
AS SPECIFIED



## IRRIGATION TRENCH WITHIN EXISTING CLAY CAP DETAIL

NO SCALE

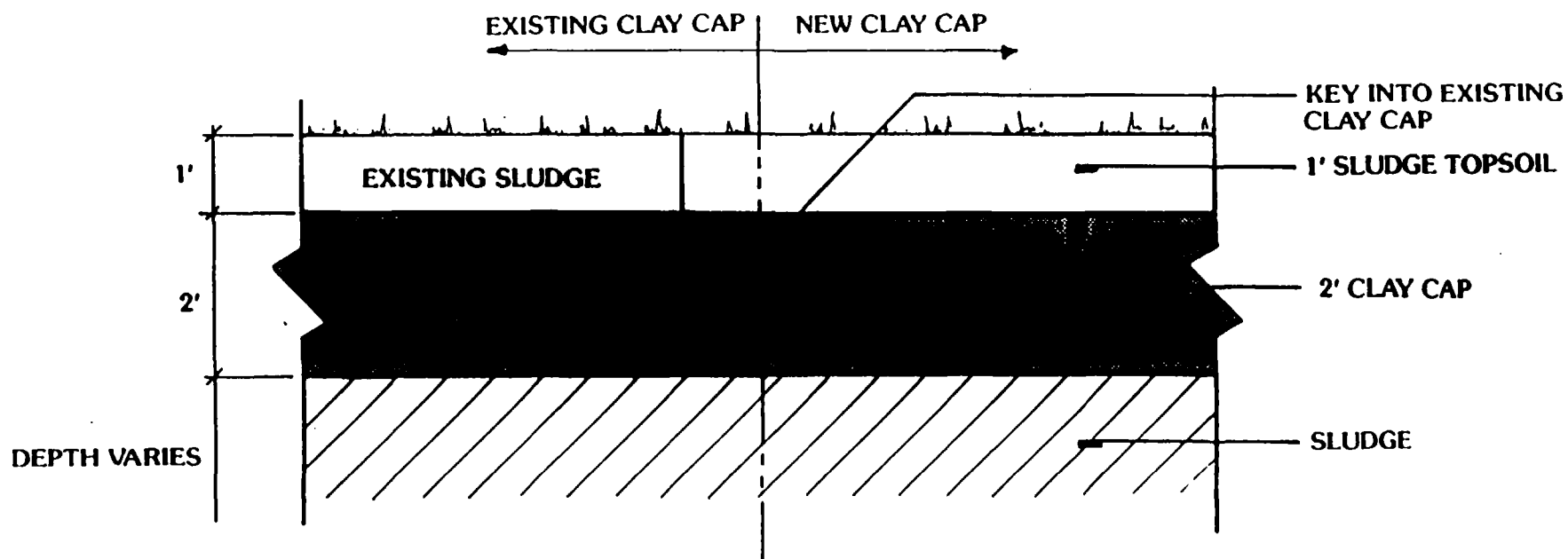
12/1/11



## IRRIGATION TRENCH WITHIN NEW CLAY CAP

NO SCALE

EX 11 C

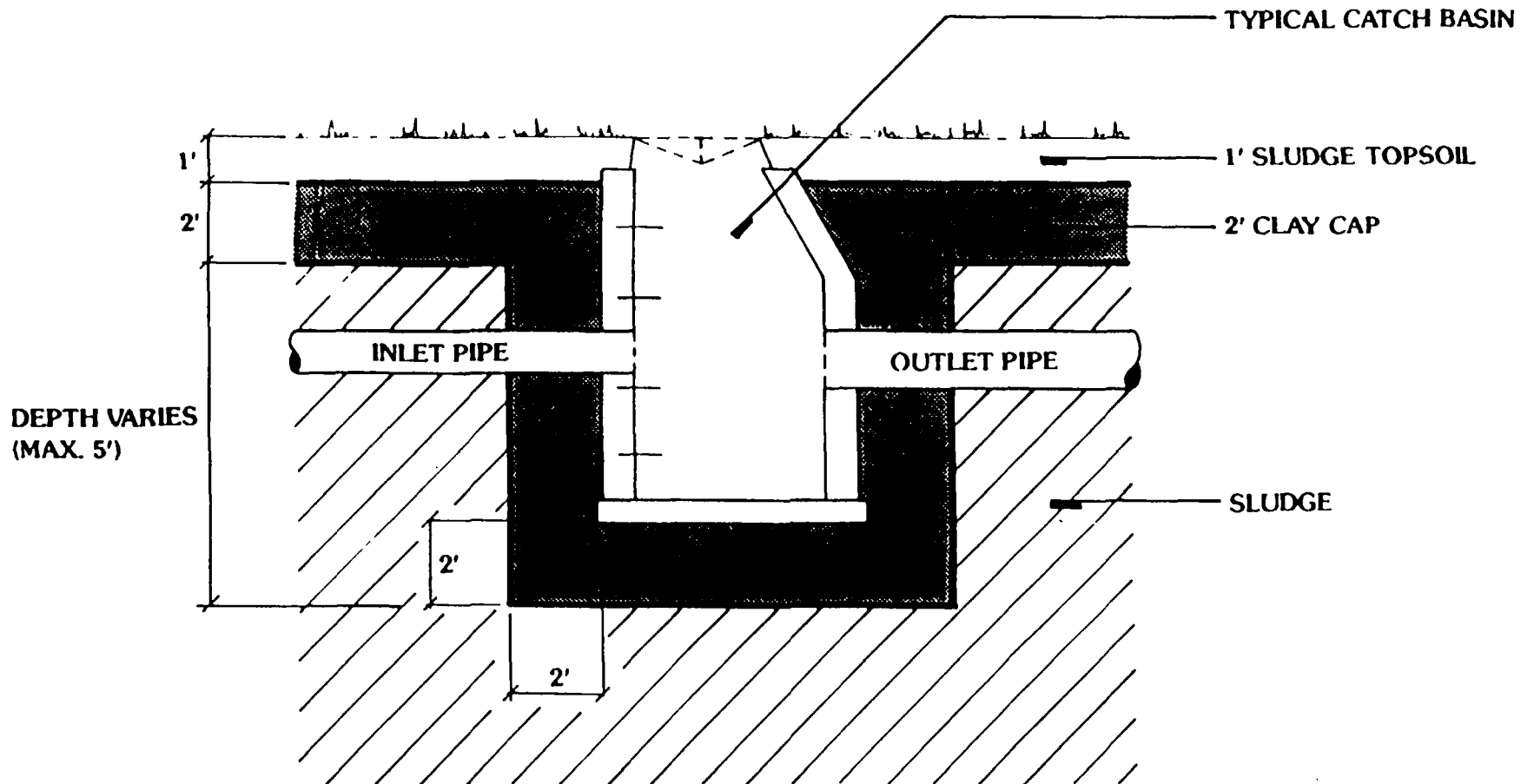


## INTERFACE WITH EXISTING CLAY CAP

NO SCALE

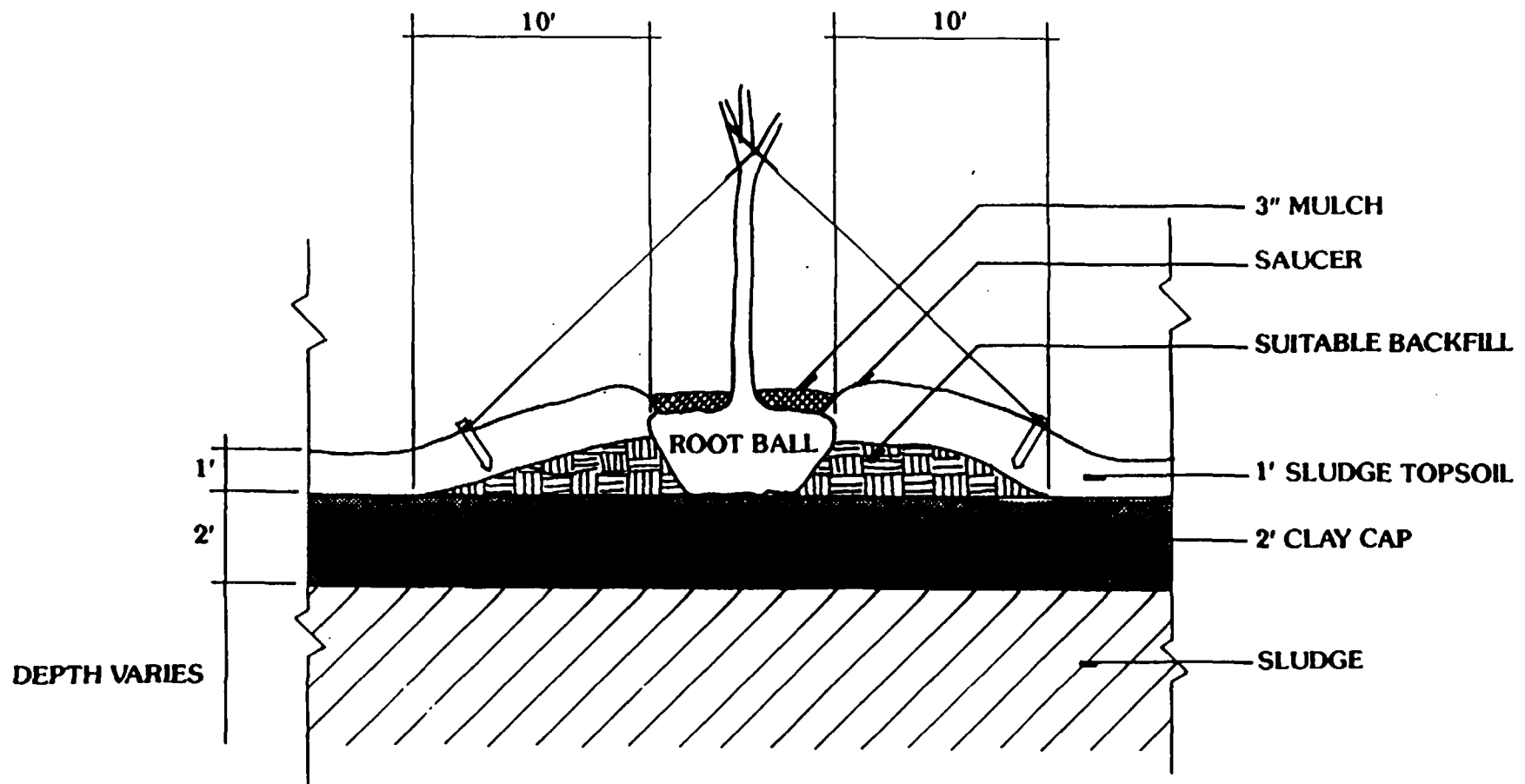
EXH. 6





**TYPICAL CATCH BASIN DETAIL**

NO SCALE



**TYPICAL TREE DETAIL**

NO SCALE

EXH F